

CLAIMS

1.A method for the management of a resource schedule with a chosen time granularity and covering a chosen overall period (PT), each resource being capable of being divided into resource fractions, each associated with a reservation period defined at least by an initial instant, characterised in that it consists of:

5 a) storing said schedule in the form of a tree known
10 as an "n-ary" tree, of order n, where n is two or more,
 equipped with leaves (Nj4), each representing a time
 interval (Tj) equal to said granularity, and with branches
 growing from nodes (Nji) each corresponding to a secondary
 period (ST) equal to the sum of the time intervals (Tj)
15 represented by all of the leaves that are associated with
 it, and

20 b) storing in each node (Nji) known as a primary node,
 belonging to a set of a minimum number of nodes jointly
 representing a reservation period, the data representing
 the maximum reserved resource quantity in the corresponding
 secondary period (ST).

25 2.A method according to claim 1, characterised in that
 said tree is of the binary type (n=2).

30 3.A method according to claim 1, characterised in that
 in the event of a request for deletion of a resource
 reservation, said stored data, representing the quantities
 of resource reserved, are updated.

35 4.A method according to claim 1, characterised in that
 said stored data are updated with the passage of time.

30 5.A method according to claim 4, characterised in that
 said update is performed periodically.

35 6.A device or arrangement (D) for the management of a
 resource schedule with a chosen time granularity and
 covering a chosen overall period (PT), each resource being
 capable of being divided into resource fractions, each

associated with a reservation period defined at least by an initial instant, characterised in that it includes:

5 a) a memory (M) suitable for storing said schedule in the form of so-call "n-ary" tree, of order n, where n is
two or more, equipped with leaves (Nj4), each representing
a time interval (Tj) equal to said granularity, and of
branches growing from nodes (Nji) each corresponding to a
secondary period (ST) equal to the sum of the time
intervals (Tj) represented by all of the leaves that are
10 associated with it, and

15 b) the processing means (PM) arranged to determine,
for each node (Nji) known as primary, belonging to a set of
a minimum number of nodes jointly representing a
reservation period, the data representing the maximum
reserved resource quantity in the corresponding secondary
period (ST), and to send said data to said memory (M) so
that they are stored within said n-ary tree.

20 7.A device or arrangement according to claim 6,
characterised in that said tree is of the binary type
(n=2).

25 8.A device or arrangement according to claim 6,
characterised in that said processing means (PM) are
arranged in such a manner as to deliver the data
representing the availability of a resource over a chosen
period.

30 9. A device or arrangement according to claim 6,
characterised in that, in the event of a request for
deletion of a resource reservation, said processing means
(PM) are arranged so as to update said data representing
the quantities of resource reserved, stored in said memory
(M).

35 10. A device or arrangement according to claim 6,
characterised in that said processing means (PM) are
arranged so as to update said memory (M) with the passage
of time.

11. A device or arrangement according to claim 10,
characterised in that said processing means (PM) are
arranged to update said memory (M) periodically.

12. A management terminal (MT) for a network
5 management system (NMS), characterised in that it includes
a device or arrangement (D) according to any one of claims
6 to 11.